Creative Enzymes®

carbamoyl-serine ammonia-lyase

Cat. No. EXWM-5273

Lot. No. (See product label)

Introduction

Description A pyridoxal-phosphate protein. The enzyme cleaves a carbon-oxygen bond, releasing CO2, ammonia, and an unstable enamine product that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form pyruvate and a second ammonia molecule. The latter reaction, which can occur spontaneously, can also be catalysed by EC 3.5.99.10, 2-iminobutanoate/2-iminopropanoate deaminase.

Synonyms O-carbamoyl-L-serine deaminase; carbamoylserine deaminase; O-carbamoyl-L-serine ammonia-lyase (pyruvate-forming)

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.3.1.13

CAS No. 52227-64-2

Reaction O-carbamoyl-L-serine + H2O = pyruvate + 2 NH3 + CO2 (overall reaction); (1a) O-carbamoyl-L-serine = CO2 + NH3 + 2-aminoprop-2-enoate; (1b) 2-aminoprop-2-enoate = 2-iminopropanoate (spontaneous); (1c) 2-iminopropanoate + H2O = pyruvate + NH3 (spontaneous)

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.